

**IN THE CLAIMS:**

1. A solid-state image sensor device having an image sensing portion performing photoelectric conversion in ~~unit of picture elements and being able to correspond to~~ both progressive mode in which all picture element signals ~~obtained by the scanning of one time in said image sensing portion being~~ are output independently, and interlaced mode in which a ~~plurality of times of interlaced scanings being~~ are performed and the picture element signals obtained in respective scanings in said image sensing portion ~~being~~ are superimposed ~~superposed, said sensor device comprising:~~

a photodiode within the image sensing portion; and

a substrate-bias generation circuit for applying a bias voltage to the substrate of said image sensing portion and for controlling said bias voltage in said progressive mode to be smaller than ~~said~~ the bias voltage while operating in the ~~said~~ interlaced mode.

2. A driving method for a solid-state image sensor device having an image sensing portion including a photodiode within the image sensing portion for performing photoelectric conversion ~~in the unit of picture elements and being able to correspond to said image sensing portion operating in~~ both progressive mode in which all picture element signals ~~obtained by scanning of one time in said image sensing portion~~ are output independently, and interlaced mode in which a plurality of ~~times of interlaced scanning being~~ scanings are performed and picture element signals obtained in respective scanings ~~being~~ are superimposed ~~superposed, wherein in said method including~~ applying a bias voltage to the substrate of said image sensing portion, ~~in~~ wherein during said progressive mode ~~the value of said bias voltage being made~~ is smaller than that in said interlaced mode.

3. A camera ~~being composed~~ comprised of a solid-state image sensor device having an image sensing portion for performing photoelectric conversion in unit of picture elements and a substrate-bias generation circuit, an optical system ~~leading in an~~ receiving incident light from a subject and forming an image on said image sensing portion of said solid-state image sensor device, a driving system for driving said solid-state image sensor device, and a signal processing system for processing the signal output from said solid-state image sensor device to obtain a video signal, wherein the image sensing portion includes a photodiode structure, and further

~~wherein said driving system for driving said solid-state image sensor device in changing over selectively between~~ operates in progressive mode in which all picture element signals ~~obtained by the scanning of one time in said image sensing portion being~~ are output independently, and interlaced mode in which ~~the scanings of a plurality times being of~~ scannings are performed and the picture element signals obtained in respective scanings ~~in said image sensing portion being~~ are superimpose superposed, and wherein the bias voltage ~~to be applied to the substrate in said progressive mode being controlled to be~~ is smaller than that in said interlaced mode ~~by said substrate bias generation circuit.~~

Please add the following new claims:

4. The solid state image sensor device of claim 1, wherein the substrate bias generation circuit adjusts the substrate bias voltage during the progressive mode of operation such that a potential difference is generated between a doped region and a well of the photodiode which is greater than during interlaced operation.

5. The method of driving a solid state image sensor device of claim 2, wherein the step of applying the substrate bias voltage during the progressive mode of operation is performed such that a potential difference is generated between a doped region and a well of the photodiode which is greater than during interlaced operation.

6. The camera of claim 3, further comprising: applying the substrate bias voltage during the progressive mode of operation such that a potential difference is generated between a doped region and a well of the photodiode which is greater than during interlaced operation.